From the INTERNATIONAL SEARCHING AUTHORITY

To: HENRY TANG BAKER & BOTTS, LLP	PCT TO THE LABOR.		
30 ROCKEFELLER PLAZA	NOTIFICATION OF TRANSMITTAL OF		
NEW YORK NY 10112-0228	NOTIFICATION OF TRANSMITTAL OF		
	THE INTERNATIONAL SEARCH REPORT		
	OR THE DECLARATION		
	(PCT Rule 44.1)		
	Date of Mailing (day/month/year) 06 APR 2000		
Applicant's or agent's file reference	FOR FURTHER ACTION See paragraphs 1 and 4 below		
32282-PCT	· ·		
Innational application No.	International filing date (day/month/year)		
PCT/US99/26127	05 NOVEMBER 1999		
Applicant THE TRUSTEES OF COLUMBIA UNIVERSITY IN TH	E CITY OF NEW YORK		
	onal search report has been established and is transmitted herewit'.		
Filing of amendments and statement under A The applicant is entitled, if he so wishes, to ame	nd the claims of the incinational appropriate		
er to continue and amount	ndments is normally 2 months from the date of transmittal of the for more details, see the notes on the accompanying sheet.		
Where? Directly to the International Bureau	of WIPO		
34, chemin des Colo 1211 Geneva 20, Sw	ritzerland		
Facsimile No.: (41-2			
For more detailed instructions, see the note	es on the accompanying sheet.		
2. The applicant is hereby notified that no internal Article 17(2)(a) to that effect is transmitted here	tional search report will be established and that the declaration under with.		
3. With regard to the protest against payment of	f (an) additional fee(s) under Rule 40.2, the applicant is notified that:		
	eon has been transmitted to the International Bureau together with the f both the protest and the decision thereon to the designated Offices.		
no decision has been made yet on the pr	etect the applicant will be notified as soon as a decision is made.		
ļ <b>—</b>	oust, the approant will be well as		
4 Further action(a). The applicant is reminded of the			
priority claim, must reach the International Bures completion of the technical preparations for intern	the following:  Lemational application will be published by the International Bureau. If ation, a notice of withdrawal of the international application, or of the su as provided in rules 90 bis 1 and 90 bis 3, respectively, before the national publication.		
Shortly after 18 months from the priority date, the interest the applicant wishes to avoid or postpone public priority claim, must reach the International Bures completion of the technical preparations for interest Within 19 months from the priority date, a demand wishes to postpone the entry into the national phi	the following:  ternational application will be published by the International Bureau. If ation, a notice of withdrawal of the international application, or of the au as provided in rules 90 bis 1 and 90 bis 3, respectively, before the national publication.  for international preliminary examination must be filed if the applicant ase until 30 months from the priority date (in some Offices even later).		
Shortly after 18 months from the priority date, the interest the applicant wishes to avoid or postpone public priority claim, must reach the International Bures completion of the technical preparations for interest Within 19 months from the priority date, a demand wishes to postpone the entry into the national phase	ternational application will be published by the International Bureau. If ation, a notice of withdrawal of the international application, or of the ation as provided in rules 90 bis 1 and 90 bis 3, respectively, before the national publication.  for international preliminary examination must be filed if the applicant ase until 30 months from the priority date (in some Offices even later).  It must perform the prescribed acts for entry into the national phase before d in the demand or in a later election within 19 months from the priority		
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Shortly after 18 months from the priority date, the interpriority claim, must reach the International Bures completion of the technical preparations for intermediate wishes to postpone the entry into the national phick within 29 months from the priority date, a demand wishes to postpone the entry into the national phick within 29 months from the priority date, the applicant all designated Offices which have not been elected date or could not be elected because they are not not been and mailing address of the ISA/US	me following:  Lemational application will be published by the International Bureau. If ation, a notice of withdrawal of the international application, or of the ational provided in rules 90 bis 1 and 90 bis 3, respectively, before the national publication.  for international preliminary examination must be filed if the applicant asc until 30 months from the priority date (in some Offices even later).  I must perform the prescribed acts for entry into the national phase before d in the demand or in a later election within 19 months from the priority to bound by Chapter II.  Authorized officer.		
Shortly after 18 months from the priority date, the interpretation of the technical preparations for interpretation of the priority date, a demand wishes to postpone the entry into the national philipping the property of the priority date, the applicant all designated Offices which have not been elected date or could not be elected because they are not not been along the property of Patents and Trademarks Box PCT	me following:  demational application will be published by the International Bureau. If ation, a notice of withdrawal of the international application, or of the au as provided in rules 90 bis 1 and 90 bis 3, respectively, before the national publication.  for international preliminary examination must be filed if the applicant asse until 30 months from the priority date (in some Offices even later).  must perform the prescribed acts for entry into the national phase before d in the demand or in a later election within 19 months from the priority to bound by Chapter II.  Authorited officer.  MEHRDAD DASTOUR!		
Shortly after 18 months from the priority date, the interpriority claim, must reach the International Bures completion of the technical preparations for intermediate wishes to postpone the entry into the national phick within 29 months from the priority date, a demand wishes to postpone the entry into the national phick within 29 months from the priority date, the applicant all designated Offices which have not been elected date or could not be elected because they are not not been address of the ISA/US Commissioner of Patents and Trademarks	me following:  demational application will be published by the International Bureau. If ation, a notice of withdrawal of the international application, or of the au as provided in rules 90 bis 1 and 90 bis 3, respectively, before the national publication.  for international preliminary examination must be filed if the applicant asse until 30 months from the priority date (in some Offices even later).  must perform the prescribed acts for entry into the national phase before d in the demand or in a later election within 19 months from the priority to bound by Chapter II.  Authorited officer.  MEHRDAD DASTOUR!		

# INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 32282-PCT	FOR FURTHER ACTION		Transmittal of International Search Report ) as well as, where applicable, item 5 below.		
International application No.	International filing date	c (day/month/year)	(Earliest) Priority Date (day/month/year)		
PCT/US99/26127	05 NOVEMBER 199	9	06 NOVEMBER 1998		
Applicant THE TRUSTEES OF COLUMBIA U	INIVERSIT. IN THE CIT	Y OF NEW YORK	I		
This international search report has be according to Article 18. A copy is bei This international search report consis	ng transmitted to the Intern	national Dureau.	hority and is transmitted to the applicant		
X it is also accompanied by a	copy of each prior art doc	sument cited in this r	eport.		
1. Certain claims were found	1. Certain claims were found unsearchable (See Box I).				
2. Unity of invention is lacking (See Box II).					
3. The international application international search was care	ried out on the basis of the	sequence listing	amino acid sequence listing and the		
	filed with the international				
	furnished by the applicant				
but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.					
	transcribed by this Author				
4. With regard to the title, X	the text is approved as sul				
	the text has been establish	ed by this Authority	to read as follows:		
5. With regard to the abstract,					
	the text is approved as sub	omitted by the applic	ant		
X	the text has been established	ed, according to Rule may, within one m	38.2(b), by this Authority as it appears onth from the date of mailing of this		
6. The figure of the drawings to be published with the abstract is:					
Figure No. 2	as suggested by the applica				
Ĭ I	because the applicant failed	d to suggest a figure	None of the figures.		
	because this figure better c				

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The technical features mentioned in the abstract do not include a reference sign between parentheses (PCT Rule 8.1(d)).

## **NEW ABSTRACT**

Systems and methods for describing image content (Figure 2) establish image description records which include an object set (24), an object hierarchy (26) and entity relation graphs (28). For image content, image objects can include global objects (O0 8) and local objects (O1 2 and O2 6). The image objects are further defined by a number of features of different classes (36, 38 and 40), which in turn are further defined by a number of feature descriptors. The relationships between and among the objects in the object set are defined by the object hierarchy (26) and entity relation graphs (28). The image description records provide a standard vehicle for describing the content and context of image information for subsequent access and processing by computer applications such as search engines, filters, and archive systems.

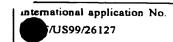
expational application	No.	
/US99/26127		

A. CLAS	SSIFICATION OF SUBJECT MATTER				
	Please See Extra Sheet.				
US CL: Please See Extra Sheet.  According to International Patent Classification (IPC) or to both national classification and IPC					
	ocumentation searched (classification system followe	d by classification symbols)	· · · · · · · · · · · · · · · · · ·		
U.S. :	382/164, 165, 173, 181, 190, 195, 205, 232, 237, 30	~, 19111, 3, ·			
Documentat	ion searched other than minimum documentation to the	e extent that such documents are included	in the fields searched		
			•		
Electronic d	ata base consulted during the international search (ne	ame of data base and, where practicable,	search terms used)		
Please See	Extra Sheet.				
C. DOC	UMENTS CONSIDERED TO BE RELEVANT	· · · · · · · · · · · · · · · · · · ·	<del></del>		
- DOC	OME. 110 CONSIDERED TO BE RELEVANT				
Category*	Citation of document, with indication, where ap	ppropriate, of the relevant passages	Relevant to claim No.		
Y	US 5,579,444 A (DALZIEL et al) 26 h	November 1996 Figures 4 6	1-64		
•	24, 26; col. 10, lines 42-67; col. 12,		- • •		
	57; col. 39, lines 14-67, col. 40, lines				
Y	US 5,144,685 A (NASAR et al) 01 Se	eptember 1992, Figures 2 and	1-64		
	7; col. 4, lines 41-68, col. 5, lines 1-3				
	lines 9-68, col. 10, lines 1-25.				
Y	Tuong Dao, IEEE Proceedings, ISBN:	0-8186-8464-X; Pages 88-97,	16-19, 35-38, 52-		
	especially Pages 88-90.		55		
		į			
		1	:		
		İ			
Furth	er documents are listed in the continuation of Box C				
	ecial categories of cited documents	"T" later document published after the inte date and not in conflict with the appl	ication but cited to understand		
	cument defining the general state of the art which is not maidered be of particular relevance	the principle or theory underlying the			
.B. cen	lier document published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be considered.			
	cument which may throw doubts on priority claim(s) or which is ed to establish the publication date of another citation or other	when the document is taken alone			
spe	icial reason (as specified)	"Y" document of particular relevance; the considered to involve an inventive	step when the document is		
	cument referring to an oral disclosure, use, exhibition or other ans	combined with one or more other such being obvious to a person skilled in the			
	cument published prior to the international films date but leter than priority date claimed	*A* document member of the same patent	fam ily		
Date of the actual completion of the international search  Date of mailing of the international search report					
		0 6 APR 2000	•		
28 FEBRU	JARY 2000	4 0 AFK 2000			
	nailing address of the ISA/US	Authorized officer			
Box PCT	ner of Patents and Trademarks	MEHRDAD DASTOURI			
washington, D.C. 20231					
Facsimile N	o. (703) 305-3230	Telephone No. (703) 305-2438			

## INTERNATIO AL S



**\L SEARCH REPORT** 



A. CLASSIFICATION	OF	SUBJECT	MATTER:
IPC (6):			

GO6K 9/00, 9/34, 9/46, 9/56, 9/36, 9/60; G06F 3/00; G09C 5/00; H04N 7/12; G06F 7/00, 15/00.

A. CLASSIFICATION OF SUBJECT MATTER:

US CL :

382/164, 165, 173, 181, 190, 195, 205, 232, 237, 304; 707/1, 3, 104, 514; 345/114, 328; 348/408; 706/55.

### **B. FIELDS SEARCHED**

Electronic data bases consulted (Name of data base and where practicable terms used):

### EAST, IEEE;

Feature Extraction, Hierarchy, Entity Relation, Segmentation, Annotation, Semantic, Cluster, XML, SGML, HTML, Structured Documents, Content Queries, Query Language, Encoding.

Form PCT/ISA/210 (extra sheet)(July 1992)\*